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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,592	07/11/2001	William Holm	0104-0354P	7653
2292	7590	06/11/2004		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER FULLER, ERIC B	
			ART UNIT 1762	PAPER NUMBER

DATE MAILED: 06/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	Applicant(s)
09/901,592	HOLM ET AL.
Examiner	Art Unit
Eric B Fuller	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 20 May 2004.  
2a) This action is **FINAL**.      2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-8, 19, 20, 31, 34 and 37-41 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-8, 19, 20, 31, 34 and 37-41 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1) Certified copies of the priority documents have been received.  
2) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 22, 2004 has been entered.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-8, 19, 20, 31, 34, 37, and 38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The applicant has added, by amendment, the negative limitation of "said add-on jetting being performed without masking or stenciling". The specification lacks support for this limitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 8, 19, 20, 31, 34, and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 6,100,787) in view of Ciardella et al. (US 5,711,989).

Huang teaches that it is known that screen printing viscous pastes often leads to uneven coatings (column 1, lines 10-31). The reference fails to explicitly teach smoothing these coatings. However, Ciardella discloses a nozzle jetting a viscous material in order to form smooth coatings, which has the advantage of being able to precisely place each droplet. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include jetting means in Huang. By doing so, one would reap the benefits of precisely placing drops in the uneven areas of coating of Huang such that a smooth coating is produced.

As to claim 2, the references fail to explicitly teach further determining errors after the jetting step and correcting them if they exist. However, since the references are concerned with achieving a certain level of uniformity, it is the position of the examiner that it would have been obvious at the time the invention was made to a person having ordinary skill in the art to determine if the uniformity of the coating was sufficient and if it

was not, to repeat the smoothing step. By doing so, one would reap the benefit of achieving the desired uniformity.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 6,100,787) in view of Ciardella et al. (US 5,711,989), as applied to claims 2 or 3 above, and further in view of Itsuji (US 5,151299).

Huang, in view of Ciardella, teaches the limitations of claims 2 and 3, but fails to teach the correcting step comprises removing some of the material. However, Itsuji teaches that screen printing often results in the deposited material being blurred at the edges (column 1, lines 25-33). This is corrected by removing some of the material such that the edges are more defined (column 1, lines 44-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to remove some of the coating in Huang, in view of Ciardella, such that the edges of the deposited material are better defined and not blurred.

#### ***Response to Arguments***

Applicant alleges that the amendments to the claims are supported by the specification, but no reference to the specification is made to show where support exists. This allegation is not found convincing. The specification does not provide any explicit support for the negative limitation. However, the examiner was persuaded to believe in the interview that the specification had implied support for the negative limitation, by the specification teaching that the present invention avoids the problems of

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the prior art. In the interview, the examiner stated that these arguments that were used to persuade the examiner's opinion should be clearly stated in the next filing by the applicant, in order to make the record clear of why the applicant believes support exists. This has not been done and the examiner maintains the new matter rejection until the record is clear, and the examiner is convinced in writing, on why the applicant believes that one skilled in the art would understand that the specification adequately supports the negative limitation of "without masking or stenciling".

Applicant argues that the new limitations, added by amendment, overcome the prior art made of record. Examiner agrees and has withdrawn the rejections of the previous action accordingly. The applicant's arguments are moot in view of the new grounds of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck, can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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